

IMPLEMENTATION OF THE BRAINSTORMING METHOD IN IMPROVING ACTIVITIES AND RESULTS OF LEARNING

ROPINUS SIDABUTAR¹, OSCO PARMONANGAN SIJABAT^{2*}

^{1,2} HKBP NOMMENSEN PEMATANGSIANTAR UNIVERSITY
email corespondensi author: oscosijabat@uhn.ac.id

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ABSTRACT

The problem in this study is "Low activity and student learning outcomes on accounting subjects". The purpose of this study was to determine the extent to which the application of the Brainstorming learning method can improve the accounting activities and learning outcomes of class XI students in vocational high School. The subjects in this study were class XI students in vocational high School, amounting to 36 people. The technique of data collection used is a test of learning outcomes in the form of teacher-made essays and observation sheets to record improvement in student learning activities during the teaching and learning process takes place. From the observation data the learning activities carried out indicate an increase in student learning activities from cycle I to cycle II. During the first cycle there were 10 people (27.78%) students who were good at learning activities. From the analysis of student learning outcomes data obtained test data before application with an average score of 63.89, while at the time of the cycle I test the average score of students became 75.14 or an increase of around 11.25 points. It can be concluded that the Application of Brainstorming Learning Methods Can Improve Activities and Learning Outcomes in the basic competencies in Class XI students in vocational high School.

Keywords: *Brainstorming Method; Learning activity; Learning outcomes.*

INTRODUCTION

In life, education plays an important role because education is a vehicle for improving and developing the quality of human resources. A lot of special attention is directed to the development and progress of education in order to improve the quality of education. One way to improve the quality of education is to renew the education system. The government has tried to hold educational innovations, namely by renewing curriculum development, providing learning facilities, improving the quality of education personnel through training and upgrading, providing funding in the form of assistance whose purpose is to improve the quality of education. To achieve these goals a professional teacher is needed. The teacher must have a strategy so that learning becomes interesting and students can learn effectively. An ideal teacher will be able to act and think critically in carrying out their duties professionally and can find alternatives that must be taken in the teaching and learning process in order to achieve learning goals.

Accounting is a lesson taught in vocational high School especially in the Business and Management Accounting Skills Program. Based on preliminary observations and interviews with authors with accounting study teachers who teach in vocational high School,

it is known that the understanding of class XI students of Accounting for Accounting subjects is still low. This can be seen from the results of students' daily tests that out of 36 students it turned out that 26 people (72.22%) did not obtain the minimum completeness criteria in the sense that they scored below 70, then the students were declared incomplete in learning, with average scores - class average. In the teaching and learning process the teacher still uses conventional learning methods. This method is centered on the teacher, so that the dominance of the teacher will result in students being less active and unable to think critically because students consider all that the teacher has to say is true and must be followed this can be said to not be as expected. Monotonous learning results in students feeling bored and not paying attention to learning, students do not dare to ask questions and express opinions so that students are more passive in learning so that students do not complete learning conditions like this are very influential on student learning outcomes.

Less active and low student learning outcomes are influenced by the lack of involvement of students in learning activities, because the learning model applied in the class is still not appropriate so that students are not eager to take classes Student activities during the learning process that are less active make many students do not have enthusiasm in the teaching and learning process in the classroom, especially accounting lessons. This is because students consider and feel accounting lessons are very difficult to understand and master, even some students say that accounting learning is a boring lesson, all of which can lead to laziness and saturation in students.

For this situation, a renewal and innovation is needed in the accounting teaching and learning process so students are active in learning so students can understand accounting lessons in a way that is easier, faster, more meaningful, effective and certainly fun for students. One of them is by applying the brainstorming learning method. This is in line with Supartini's (2005) research on efforts to improve learning outcomes through the implementation of the brainstorming method of broad and circumstantial discussion on fifth grade students of Pogalan III Elementary School, Pakis District, Magelang District 2004/2005 academic year. The conclusion obtained after conducting classroom action research is that the implementation of brainstorming learning methods can improve the learning outcomes of broad and circumstantial subjects in fifth grade students of Pogalan III Elementary School, Pakis District, Magelang District, 2004/2005 Academic Year.

Learning Method brainstorming or brainstorming is one of the learning methods that has benefits so that learning objectives are achieved through independent learning activities and students are able to explain their findings to other parties. What is expected, in addition to the learning objectives achieved, the ability of students in independent learning can also be improved. This learning method prioritizes the activeness of students to develop the potential that exists in students to the fullest, as facilitating the understanding and absorption of students in accounting subjects, which contribute to improving student activities and learning outcomes. Paying attention to the problems above, it is appropriate for an accounting lesson to be carried out an innovation, in this case the teacher must be able to change the conventional teaching method to various methods or learning models. One of the learning methods that can be used is the brainstorming learning method that is expected to achieve success in school learning and can be used as an alternative to improve student learning outcomes. One of the teacher's efforts in strategic teaching is to use a method or learning model that is appropriate to the material so as to support the creation of conducive and interesting learning activities for students. An innovative learning model needs to be pursued that can improve the understanding of accounting and at the same time increase the

activeness of students and provide a conducive climate in the development of students' reasoning and creativity.

One of them is the brainstorming learning method that teaches and requires students to convey their ideas and ideas in delivering learning materials to be more creative in learning. The method of self-study usually often causes boredom and boredom. To overcome this can be varied by learning with your closest friends. Learning together basically solves problems so that better results are obtained. Thoughts and many people are usually more perfect than one person. Discussion or group learning is a better way to learn together. The formation of small groups aims so that students can work in groups to achieve certain goals together, foster the willingness and ability of cooperation and increase the emotional and intellectual involvement of students in learning. Through the application of brainstorming learning methods, it is expected to improve learning outcomes and learning activities, so as to educate students for creative learning.

From the description above, the problem solving in this action research is to apply the brainstorming learning method that is expected to improve accounting activities and learning outcomes of Class XI students in vocational high School, 2020/2021 academic year.

METHOD

This research was conducted in vocational high School. The time of this study was carried out in the 2020/2021 Semester Odd Academic Year. This type of research is class room action research. Classroom Action Research is conducted in two cycles and information from the previous cycle determines the next cycle. In general there are 4 steps that are carried out, namely 1) Planning (Planning), 2) Implementation (Action), 3) Observation (Observation), 4) Reflection (Hamid and Aceng 2006). Data collection techniques used in research are tests in the form of essay questions and observations of student learning activities during learning activities take place. While data analysis in this study was carried out in several stages, namely:

1. Data Reduction

The process of data reduction is done by selecting, simplifying and transforming the data that has been presented in the form of field notes. This reduction activity aims to see the students' answer errors in solving the questions in accounting and what actions are taken to correct these errors.

2. Presentation of Data

Data on student answer errors that have been reduced are then presented in the form of exposure to student answers. Student analysis activities in the form of exposure to data is a collection of organized and categorized information that allows conclusions. Data were analyzed to describe student learning completeness, namely data obtained from the final value of each cycle. Student learning outcomes were analyzed using the specified learning completeness criteria, namely students were said to complete individual learning if they had gotten a score of $\geq 70\%$ of the total score, and classical completeness was achieved if there were $\geq 70\%$ of students completing the study in that class.

3. Conclusion

In this activity some conclusions are drawn based on the research that has been done, the conclusions taken are the basis for the implementation of the next cycle and whether or not the cycle should continue.

RESULTS AND DISCUSSION

1. Description of Research Results

This research is in the form of classroom action research conducted in vocational high School 2020/2021 Academic Year by applying brainstorming learning methods in increasing the learning outcomes of Class XI students. This research is a Classroom Action Research. This research will be carried out in 2 cycles and each cycle will be completed in 2 meetings, where in 1 cycle consists of 4 stages, namely: (1) planning (2) implementation, (3) observation, (4) reflection. At the beginning of the research activity was given a pre-test to determine the level of student understanding of the material to be studied and finally given a post test to find out the changes that occurred. If the student learning outcomes under the minimum teaching completeness criteria are 70 then the students have not yet finished learning, and if $\geq 70\%$ of the number of students have not yet reached the value of 70 then completeness in classics has not been fulfilled and will continue to the next cycle. Then if the student activities cannot increase by 50% of the number of students, the second cycle will be carried out by focusing learning on the material not yet mastered or the weaknesses of the students. The research data consisted of pretest results, then added the posttest scores for each cycle.

The pretest results function to see the students' initial abilities and are useful for determining the division of groups, while the post test to see the students' final ability after the implementation of brainstorming learning methods on the basic competencies in managing cash and bank administration. The results of managing the data on the test, in the form of a pre test at the first meeting of the first cycle, look like the following:

Table 1
Results of Obtaining Value Tests for Student Learning Outcomes

| No | Information | The number of students | | | Percentage (%) | | |
|----|--------------|------------------------|---------|----------|----------------|---------|----------|
| | | Pretest | Cycle I | Cycle II | Pretest | Cycle I | Cycle II |
| 1 | Complete | 17 | 25 | 31 | 47,22 | 69,44 | 86,11 |
| 2 | Not Complete | 19 | 11 | 5 | 52,78 | 30,56 | 13,89 |

Observations for the activities themselves were carried out during the application of the Brainstorming learning method, this observation was carried out by two observers, namely researchers and Exemplary Private Vocational School. In this observation, observers make observations about student learning activities that are applied through student activities in the teaching and learning process. The server is conducted every meeting and accumulated for each cycle. The following is the average score of the student observer results by the observer during the teaching and learning activities. The results of observations of student activities can be seen in the following table:

Table 2
Results of Student Activity Observations

| Cycle | Not Active | | Quite Active | | Active | | Very Active | |
|-------|------------------------|-------|------------------------|-------|------------------------|-------|------------------------|------|
| | The number of students | % | The number of students | % | The number of students | % | The number of students | % |
| I | 5 | 13,89 | 21 | 58,33 | 10 | 27,78 | - | - |
| II | - | - | 6 | 16,67 | 28 | 77,78 | 2 | 5,56 |

2. Discussion of Research

In the simulation at the beginning of learning, the teacher in the field of study teaches as usual, where the teacher only uses the lecture learning model and simple question and answer. In addition, the teacher only gives examples of questions from the book where the answer is already there in the book so that they are less interested and not motivated to solve the problem in the sample problem, the student only records back in the textbook. In explaining the subject matter, teachers pay less attention to student behavior so students feel less attention, consequently students are less eager to learn, there are also students doing other things that are not related to learning and do not pay attention to what the teacher explained. In this learning activity, students are less active in the teaching and learning process and students rarely ask questions and express opinions. The teaching and learning process occurs in one direction (teacher-centered). Thus, student learning activities still tend to be passive, especially the student learning outcomes are still relatively low because many students who have mastery and learning values have not attained a minimum standard of learning completeness at school.

Therefore researchers and teachers in the field of study plan for the next meeting to apply the Brainstorming learning method when learning activities take place. At the beginning of the research activity was given a pretest to determine the extent of students' level of understanding of the material to be studied and at the end of each meeting was given a posttest, which is a test question that is in accordance with the questions done by the teacher. Then giving posttest at the end of the cycle to find out the changes that occur in the activities and student learning outcomes. If the student learning outcomes under the Minimum Completion Criteria are 70 then the students have not yet finished learning, and if 70% of the total students have not yet reached 70 then classical completeness has not been fulfilled, so that it will continue to the next cycle.

Cycle I

1. Planning

At this stage, researchers and subject matter teachers hold discussions about implementing classroom action research, make plans for implementing learning in accordance with the Brainstorming learning method and discuss the tests that will be given to students in each meeting to see the development of student learning activities and outcomes.

2. Implementation

At this stage, the teacher is the teacher by applying the Brainstorming learning method that has been designed in the learning implementation plan. In the first cycle, three meetings were held. The first meeting begins with the initial test (pretest) conducted before the subject matter is taught, namely the accounting equation, this is done to determine the extent to which students' initial knowledge of the material. This is also done to determine the division of groups according to the level of ability and characteristics of individual students. From table 1 the results of the percentage of pretest scores of students who completed are 47.22% with an average score of 63.89 students. In the next stage students are given an explanation of the subject matter which at the first meeting is the accounting equation. Then students are divided into groups, each group consisting of 6 students. The division of groups is determined based on the results of the students' initial abilities. After that students are given assignments (problems) that are in accordance with the problems the teacher is working on to work with the group, thus

students try to understand each task given therefore the role of students as peer tutors is needed so that friends in one group can truly understand the material taught. After the task has been done within the period of time given by the teacher, students together discuss the results of the assignment. Then do the percentage, where each group comes forward to present the results of their group in turn. Thus students compete to obtain the value that will be given to their respective groups. Values obtained by students will also be accumulated to add their value as a daily value. Students in each percentage play the role of presenter, moderator and answerer. Other groups must provide questions. In the three meetings in the first cycle, this percentage was carried out, so that students who actively competed with each other asked questions and made comments that would add value to both individuals and groups. Initially the students did not respond and were absorbed in their activities due to lack of awareness and lack of understanding in carrying out this percentage, but after the second and third meetings the responses were shown to be more positive and they felt happy and enthusiastic in each learning process, even more after each percentage. the group that received the highest score received an award in the form of a 5-piece pen prize. They feel that they are given the freedom to pour their creativity. The post test was conducted at the end of the third meeting, posttest was conducted to determine the level of student mastery of the material given. The average score obtained by students is 75.14 where this value increases from the results of the pretest conducted at the beginning of the meeting.

3. Observation

Observations in this study were carried out by the researchers themselves. Researchers who also play a role as observers (observers) observe student activities during learning. The results of the observation of student learning activities showed that in general students felt unfamiliar with the application of the Brainstorming learning method and when divided into groups there were several people who were silent and only observed their friends. The results of observations of student activities are also relatively good even though there are some aspects that are still below the standard, namely only one person who is very good in his activities. Observation data of student activities have 5 people (13.89%) students for inactive criteria, 21 people (58.33%) students for quite active criteria, 10 people (27.78%) students for active criteria and for very criteria good yet. This means that student learning activities are not as expected so that the teacher will continue learning with Brainstorming learning methods in small groups.

4. Reflection

The results of data analysis were obtained from the pretest value, posttest value and observation sheet. Based on the analysis of the data it is known that between the pre test and post test there was a change. At the time of the pretest the number of students who completed the study were 17 people (47.22%) with an average of 63.89 while at the post test the number of students who completed the study became 25 people (69.44%) with an average of 75.14 . This acquisition has not met the criteria for completeness in a classical manner, namely 85% of students must obtain a value of ≥ 70 , so it needs to be continued to the next cycle.

Cycle II

1. Planning

The results of student grades after reflection are still not fulfilling the minimum completeness criteria in a classical manner, namely 85% of students must obtain a value of ≥ 70 . The results of observations are also far from expected. For this reason, the

researcher made a plan for implementing the learning that will be carried out in the second cycle. In cycle II it is designed to correct weaknesses found in cycle I.

2. Implementation

In the second cycle this was carried out still by applying the Brainstorming learning method. Here the teacher prefers how to explain material that is light but can be understood by students. The teacher gives more examples of questions and trains more students to work on the questions. It aims to make it easier for students to work on the assignments given and motivate students to move on to solve the difficulties found in the teaching and learning process, and respond to the answers given by their friends. Then students are rearranged according to their groups and given assignments (problems) to be discussed. The group holds a discussion about the results of the discussion that will be presented in front of the class later. In this percentage, an encouragement trick is made, namely students who dare to ask questions and respond to questions from other groups will be marked with an asterisk and at the end the percentage will be exchanged for prizes. With the condition that three stars have been collected, three will be exchanged for prizes. Here students work individually to answer questions and give comments given by the teacher and group but the value students get is still to be donated to group wins. This trick is intentionally made different so students don't get bored with the previous tricks. For the second cycle posttest made at the third meeting, posttest was made to determine the students' final ability and increase students' abilities after the Brainstorming learning method was applied. In this second cycle an increase in the results of the average value obtained from the first cycle is 75.14 to 83.75 and from the completeness of learning outcomes 69.44% (25 people) who have reached the minimum completeness criteria standard increases to 86.11% (31 people). The results of student completeness of 86.11% is a value that has exceeded the standards set by the school, that is, if 85% of students have achieved a minimum value of 70 then the teaching and learning process is said to be successful.

3. Observation

As in the previous cycle, observations also take place during this cycle when learning activities take place. In teaching and learning activities, student activities appear to be increasing. Students are more open to expressing problems faced and those that are poorly understood during teaching and learning activities. This is because the second cycle of learning is more about solving problems. In the second cycle, the observational data on student activity showed that students for inactive criteria became nonexistent, 6 people (16.67%) students for fairly active criteria, 28 people (77.78%) students for active criteria and 2 people (5, 56%) students for criteria are very active.

4. Reflection

After carrying out the actions in cycle II, researchers reflect on actions that are still needed, but here researchers feel that the research conducted so far has been said to be successful because the value obtained has reached the standard. Obtained student learning outcomes with an increase in the average value from cycle I to cycle II amounting to 8.61 and also simultaneously indicates that there is no need to carry out the next cycle because the number of students completing learning is 86.11%. This shows that the second cycle has reached the classical criteria of completeness, namely 85% of students must obtain a value of ≥ 70 . With the increase in learning outcomes in the second cycle, student learning activities also increased from cycle I to cycle II. In the first cycle of 36 students there were 5 people (13.89%) students for inactive criteria, 21 students (20.46%) students for quite active criteria, 10 people (27.78%) students for

active criteria and for very active criteria do not exist. While in cycle II there was an increase to nonexistent inactivity criteria, 6 people (16.67%) students for quite active criteria, 28 students (77.78%) students for active criteria and 2 people (5.56%) students for very active criteria. This increase shows that students already understand the basic competencies of using the Brainstorming learning method in class XI of vocational high School.

CONCLUSION

Based on the results and discussion of the research, it can be concluded as follows:

1. Student learning outcomes after the application of Brainstorming learning methods can increase. Where the increase in the value of students' abilities between the first cycle to the second cycle is 8.61 and 16.67%
2. Student accounting learning activities during the Brainstorming learning method improve especially on the basic competencies in vocational high School.

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